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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,018	09/08/2000	David Gabriel	199-1538	3646

22844 7590 09/30/2003

FORD GLOBAL TECHNOLOGIES, LLC.
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DEARBORN, MI 48126

EXAMINER

DEBERADINIS, ROBERT L

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/659,018

Applicant(s)

GABRIEL, DAVID

Examiner

Robert DeBeradinis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/2/03 has been entered.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 26-43 been renumbered 25-42.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over REUYL 4,182,960 in view of GREEN 5,642,270 in further view McGREW 5,865,258.

Regarding claims 21-31, 34, 38.

REUYL discloses a motor vehicle electrical power system for powering an electrical load external to the vehicle comprising:

an internal combustion engine (26');
a battery (52);

an electric generator (26'') coupled to said internal combustion engine for generating electrical power when said internal combustion engine is running;

an electric motor (propulsion system 56, see column 4, line 42) coupled to said battery.

REUYL does not disclose a motor vehicle electrical power system for powering an electrical load external to the vehicle comprising:

an electric generator coupled to said internal combustion engine for generating AC electric power when said internal combustion engine is running;

a generator inverter disposed between said electric generator and said battery for converting the AC electric power generated by said generator to DC electric power for storage in said battery;

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a traction inverter coupled to said battery for converting the stored DC electric power to an AC power input for said electric traction motor;

a switching device disposed between said traction inverter and said electric traction motor for selectively diverting the AC electric power input from said electric traction motor for application to the external electrical load.

GREEN discloses (column 5, lines 30 plus):

an electric traction motor (5) coupled to said battery (1);

a traction inverter (2) coupled to said battery for converting the stored DC electric power to an AC power input for said electric traction motor (5);

a switching device (4) disposed between said traction inverter and said electric traction motor (5) for selectively diverting the AC electric power input from said electric traction motor for application to the external electrical load (utility grid).

REUYL in view of GREEN do not disclose a control means for prohibiting movement of the vehicle when powering the external electrical load.

McGREW discloses a mobile apparatus and teaches the control means so as to prohibit movement of the mobile apparatus when maintenance equipment is away from its stored position (col. 19, lines 59-68).

It would have been obvious to one having ordinary skill in the art at the time of this invention to provide:

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an electric generator coupled to said internal combustion engine for generating AC electric power when said internal combustion engine is running;

a generator inverter disposed between said electric generator and said battery for converting the AC electric power generated by said generator to DC electric power for storage in said battery;

to provide backup AC power directly to the residential load and provide the generator inverter to charge the vehicle batteries from the AC generator when the vehicle is in a normal charging mode of operation and to provide a control means for prohibiting movement of the vehicle when powering the external load to prevent damage to the interface when the external load is connected to interface umbilical involving the heat transfer connection and the power, sensing and control circuits (col. 4, lines 43-46).

Regarding claims 32, 33, 35, 36, 37, 39, 40, 41.

McGREW discloses control means wherein said control means prohibit movement of mobile apparatus if maintenance equipment is not stored in position on the mobile apparatus.

McGREW does not teach wherein said control means inhibits operation of said system based on one or more of a gear selector position, door open/shut and parking brake condition , it is obvious that a sensing device such as a switch is used to sense the position of the maintenance equipment to provide the required input to the control means to enable the mobile apparatus to move when the maintenance equipment is in its stored position.

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The Examiner takes official notice that means for sensing conditions and providing information to the control means to enable or disable a function are well known in the art of control systems.

It would have been obvious to one having ordinary skill in the art at the time of this invention to provide sensing to sense when the umbilical interface is connected to the vehicle and provide the sensed condition to the master controller of the automobile system to inhibit movement of said vehicle or when in the vehicle operation mode to inhibit the generator by sensing the position of the gear selector position or parking brake position etc..The motivation would be to prevent the vehicle from becoming disabled when in the automobile mode or preventing damage to the umbilical interface when the umbilical interface is connected (Green teaches an interlock function, col 8, lines 20-23).

Regarding claim 42.

GREEN wherein the DC-DC converter is bidirectional and wherein the method further comprises the step of operating the vehicle in a charging mode (GREEN col.2, lines 53-57).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. PETERS 5,861,800 discloses sensor senses position of mechanism for locking gear selector in a vehicle..

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Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (703) 306-5857. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on (703) 308-3119. The fax phone number for this Group is (703) 308-7722.

RLD

SEPTEMBER 10, 2003

A handwritten signature in cursive script, appearing to read "Robert L. DeBeradinis".